ASL

Australian Society for Limnology Inc.

NEWSLETTER

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AUSTRALIAN SOCIETY FOR LIMNOLOGY INC.

The Australian Society for Limnology Inc. (ASL) is an Australian-based scientific society whose focus is the study and management of inland waters. The ASL was established in 1961, and has a current membership of over 650 researchers, managers, engineers, teachers and tertiary level students from all states and territories. Members have a strong professional interest in inland aquatic issues, including the maintenance of biodiversity, the maintenance and/or restoration of water quality, and the wise use of aquatic resources. The Society also has a strong interest in fostering the scientific and intellectual development of tertiary students.

The Society includes members working in government agencies, tertiary institutions and many industries related to aquatic resources. Through their daily activities, members have contact with local communities and are in a sound position to interpret and advise on inland water issues. The Society has a substantial knowledge base, and has assumed a responsibility to ensure that this is available to those who manage inland waters.

Accordingly, the charter of the ASL is to further our understanding of Australia's inland waters and to promote their wise use and sustainable management. In this manner we will contribute to the continued existence of this valued resource and the maintenance and enhancement of the quality of life for all Australians. The ASL regularly produces a newsletter with notes on limnological activities, articles of interest, book reviews and announcements of upcoming events likely to be of interest to Members.

EXECUTIVE OFFICERS 2004-2005

President
Dr Sabine Schreiber
Arthur Rylah Institute for Environmental Research (Department of Sustainability and Environment)
PO Box 137, (123 Brown Street),
Heidelberg VIC 3084
Ph: 03-9450 8640, Fax: 03-9450 8799, Email: Sabine.Schreiber@nre.vic.gov.au

Vice-President
Professor Stuart Bunn
Director, Centre for Riverine Landscapes, Faculty of Environmental Sciences
Griffith University, Nathan QLD 4111
Ph: 07-3875 7407, Fax: (07) 3875 7615, Email: S.Bunn@griffith.edu.au

Immediate Past President
Assoc. Prof. Andrew Boulton
Ecosystem Management, The University of New England, Armidale NSW 2351
Ph: 02-6773 3760, Fax: 02-6773 2769, Email: aboulton@une.edu.au

Secretary
Dr Richard Marchant
Museum Victoria, GPO Box 666E, Melbourne VIC 3001
Ph: 03-8341 7433, Fax: 03-8341 7750, Email: rmarch@museum.vic.gov.au

Treasurer/Membership Officer
Mrs Margaret Hart
PO Box 605, Mulgrave VIC 3170
Ph: 03-9807 5599, Fax: 03-9807 5055, Mobile: 0419 506 254,
Email: Margaret.Hart@sci.monash.edu.au

CONTENTS

CONTENTS	3
PRESIDENT'S REPORT	5
EDITORIAL	6
ANNOUNCEMENTS	7
SCUTTLEBUT, RUMOUR & PRATTLE	8
POSTCARD	9
A BIT OF FUN	11
CENTRE FOR RIVERINE LANDSCAPES, GRIFFITH UNIVERSITY, BRISBANE	13
INFORMATION FROM AND FOR MEMBERS	14
FASTS	17
REVIEWS	22
CONFERENCE CAPERS	24
FORTHCOMING CONFERENCES/WORKSHOPS	29
ASL VOLUNTEERS	31
ASL MEMBERSHIP FORM	36
ELECTRONIC NEWSLETTER APPLICATION FORM	38
REGIONAL EXECUTIVE MEMBERS 2004-2005	39

PRESIDENT'S REPORT

Hello all! Only just have we welcomed our new newsletter editor and already she has changed her name! Congratulations, Emma MacKenzie!

It has been a busy quarter:
ASL was well represented at SMP and some notes from some of us follow in this newsletter.

Conference organisation for Tasmania is in full swing and we are busy updating the way we do our business to streamline the many jobs associated with organising conferences. Shawn Meredith has accepted the challenge to organise next year's conference in Mildura.

I recently attended a FASTS board meeting in Melbourne: high on the agenda were discussions about the research quality framework proposed by the federal government and FASTS remains very active in contributing to both this debate and the debate on the role of Australian Universities in teaching and research. It became clear to me once again how active FASTS is in science-associated lobbying of government. ASL will be contributing more to FASTS in the near future, as Andrew Boulton has become the new aquatic cluster representative - the aquatic cluster consists of the Australian Coral Reef Society, the Australian Marine Sciences Association, the Australasian Society for Phycology and Aquatic Botany and us.

Finally, the Aquatic Protected Areas policy by ASL has been under development for a few years now and has now been finalised and will be on our web page shortly.

I hope to see many of you at our next conference to be held at the University of Tasmania in Hobart, 28th November - 2nd December, this year.

All the best to all of you,
Sabine

EDITORIAL

Helloooo fellow ASLers, greetings from Clare, South Australia. This is my first edition as newsletter editor and I'm crossing my fingers that everything's in the right place. Big thanks to the ASL Executive for the opportunity to play this part in ASL, and particular thanks to Rhonda Sinclair, Sabine Schreiber & everyone else for your assistance and contributions ... of which there are many so I won't hold you up in digesting this edition - cheers, Emma. - p.s. note changed email contact below.

Material for publication in the Volume 43 #3 newsletter (September Issue) is due by **Friday 26 August 2005.**

All articles should be forwarded, if possible, as unformatted text on a disk or via email.

ASL Home Page - http://www.asl.org.au/

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Membership Information and contact details of the Regional Executive Members can be found at the back of this Newsletter.

Newsletter Editor Contact Details
Emma MacKenzie
PO Box 213,
AUBURN SA 5451
Phone: (08) 8842 6400
Fax: (08) 8842 3624
Email: **emma.wauchope@postgrads.unisa.edu.au**

ANNOUNCEMENTS

Young Scientist of the Year - Nominations - by 10 Jun 05
The Australian and British Council Australia are looking for the Young Scientist of the Year for 2005. The winner will receive a trip to the UK and Ireland in September 2005, to the value of AUDS$5,000. The winner will also gain a unique insight into science reporting by working with The Australian, The Times, and London's Science Museum.

Entrants are asked to write an original news story about their research, not to exceed 550 words and in a style suitable for publication in The Australian. If you know of anyone suitable, please encourage them to nominate. Please note the award is intended for early career working scientists, it is not intended to for those planning a career in journalism or science communication.

Nominations close at 5pm Friday 10 June 2005. More information on the award and how to enter is included below. For further details please go to the Science and Nation section at www.theaustralian.com.au or to www.britishcouncil.org.au.

PhD study in New Zealand
Applications must be received by Education New Zealand no later than 15 July
If you know of any students who are interested in doing a PhD in soil science at Lincoln University, please pass this information on to them I can be contacted if any specific information is required regarding specific research topics. Leo Condron, Condronl@lincoln.ac.nz.

The NZ International Doctoral Research Scholarships previously known as the NZ International Postgraduate Research Scholarships) close on 15 July 2005. These scholarships are available to international students to study in NZ. The Guidelines for Applicants, Terms and Conditions of the awards and list of eligible countries can be accessed on the Lincoln University Scholarships database www.lincoln.ac.nz/scholar/. Type in the name of the scholarship and all the information is provided.

More information
For more information or clarification about this scholarship please contact the Scholarships Administrator at the above address, visit
www.newzealandeducated.com/scholarships or e-mail :
scholarships@educationnz.org.nz.

SCUTTLEBUTT, RUMOUR AND PRATTLE

University of New England

We are gearing up for another winter on the Tablelands, scheduling those all important field trips to the North Coast at the mention of frost and snow. PhD students **Emilie Warner** and **Ruth Harlow** are continuing to apply the Downes et al monitoring framework to assess the effects of water extraction in the Nymboida River. This winter will see them broaden the scale of their sampling to include multiple rivers in the North Coast region that will allow them to assess the biofilm and bugs in the Nymboida in the context of other rivers in the region. Further south, the reintroduction of wood into the Hunter River last October has kept **Ben Wolfenden** and **Sarah Mika** busy collecting data examining organic matter cycles and hyporheic zone biogeochemistry respectively in the rehabilitated reaches. Also on the coast, **Rosanna Chell** has begun her honours project that aims to develop a monitoring framework for the Broadwater wetlands as part of the Plan of Management required for its Ramsar nomination.

Out in the dry, dry west, **Kim Jenkins** and new PhD student **Phil Morris** have been busy locating sites and collecting pilot data as part of their project examining microinvertebrates and food webs in permanent and temporary wetlands of the Macquarie Marshes. Over the summer Kim has completed a flooding experiment in the lab that aims to link flood history and primary and secondary production. From the Marshes we head south to where **Darren Ryder** and **Nerida Bleakley** have given up all hope of rain and floods in the Murrumbidgee River, and have begun the task of bringing together a mammoth dataset in an attempt to link riverine productivity, water borne contaminants (nutrients, salts) and regulated flow regimes in the mighty 'bidgee.

And finally, congratulations to **Wendy Miller** who submitted her PhD thesis earlier in the year on the functional ecology of urban streams on the Northern tablelands.

Darren Ryder

POSTCARD

We're all getting older – where are they now?

Missing your 21st birthday is serious. In a moment of mathematical miscalculation (worthy of a Door Prize nomination in itself), we missed the 21st anniversary of the awarding of the Door Prize in Adelaide last year. So, whenever you have a 21st, there's always the drunk relative/friend who makes a speech, carefully designed to embarrass you – old tales of misdemeanours and revelations. So here it is:

For new members of the Society, the Door Prize is awarded at each ASL Congress to the person, thing, species, event or act that makes the Congress memorable into the future. You may not be able to remember many of the more intellectual talks from years past, but you will always remember the winner of the Door Prize. But the Door Prize is not just some frivolous part of the conference. Winners of the Door Prize almost invariably go on to bigger and brighter careers in Limnology. The first Door Prize winner was Patrick DeDekker at the Mt. Gambier conference (1984). And where is he now? Winning the 2004 ASL medal!

A judicious search of old ASL Newsletters (remember the paper ones) has revealed a list of the winners of the Door Prize in each year since 1984.

No.	Year	Location	Winner
1	1984	Mt. Gambier (SA)	Patrick DeDekker
2	1985	Jarradale (WA)	Every-one in a Fun Run
3	1986	Lorne (Vic)	*A Daphnia*
4	1987	Lake Hume (NSW)	Mark Harvey and Nick O'Connor
5	1988	Magnetic Island (Qld)	Ian Campbell and Richard Pearson
6	1989	Canberra (ACT)	Jenny Chaplin
7	1990	Jabiru (NT)	John Bywater
8	1991	Lorne (Vic)	Nick Drayson
9	1992	Bronte Park (Tas)	Not awarded - no suitable contenders
10	1993	Marcoola (Qld)	Every-one in a Iron-person Race
11	1994	Rottnest Island (WA)	Rob Doupe
12	1995	Jenolan Caves (NSW)	The Line Dancers
13	1996	Berri (SA)	Not awarded - no suitable contenders
14	1997	Albury (NSW)	Anonymous pool player
15	1998	Brisbane (Qld)	Bill Dennison
16	1999	Lake Taupo (NZ)	Michelle Bald
17	2000	Darwin (NT)	Ben Gawne
18	2001	Moama (NSW)	John Howard impersonator
19	2002	Margaret River (WA)	Jane Chambers
20	2003	Warrnambool (Vic)	Jacqueline Giles

21	2004	Adelaide (SA)	Ben Smith
22	2005	Hobart (Tas)	**Your name can be here!**

And a few of them have made something in their subsequent limnological life. Mark Harvey is now a Senior Curator at the Western Australia Museum, Nick O'Connor is a successful consultant, and Ian Campbell picked up the 1989 ASL medal only 1 year after being awarded the Door Prize! Richard Pearson has done well in Queensland and Ben Gawne has done something - I think I seem to recall his name popping up somewhere. Jane Chambers is a lecturer at Murdoch. Aside: It seems that there is a rather odd preponderance of Western Australians who have taken out the Door Prize, particularly in the past 10 years. I wonder if this means something.

As for the rest, you can't help but wonder what happened to them. Searching the ASL members on the web comes up blank (of course you have to tick the box to allow people to search for your name), but whatever happened to some of the more distant winners - Jenny, John, Nick, Rob, Bill and Michelle. And the Line Dancers from Jenolan Caves - where did they end up (on second thoughts, maybe I don't really care about that one). So if you know where they went (apologies if something bad happened), let us know and we will prepare a better retrospective of the Door Prize for the next Newsletter and Conference.

And my favourite winner - I can't go past Rob Doupe from the 1994 Rottnest Island Conference, whose nomination went:
"After earnestly discussing the finer points of limnology and ecological theory late into the night after the annual dinner and wanting to secure a position close to the front for the following morning session, our winner decided the place to sleep was on the lawn outside Room 1. Camping down in his sleeping bag, the winner slept soundly, lulled to sleep by the gentle sound of quokkas doing ... well, whatever it is that quokkas do during the night ... and far from the madding crowd of snorers who populated his bunkhouse. Imagine the bliss when awoken in the morning by the sound and feel of gentle rain ... wait a minute ... that's not rain. Opening one eye, it was immediately irrigated by the flood from the sprinkler head located 10-12 cm from our winners face (psst, they always water the lawns early in the morning). Well, guess that's not too bad ... saves having a shower today ... what's that ... where does the water come from? Like Western Australia, Rottnest Island is a dry place and fresh drinking water is at a premium. Not for them the profligate use of pure water for watering lawns that characterises Eastern State mentality. Reduce, recycle and reuse is the catchword. Recycling and reusing treated sewage is popular for lawns on Rottnest Island."

See what you have to beat if you want to be announce in the Door Prize team of the century.

A BIT OF FUN ~ KEEP THOSE LETTERS COMING !!

Ask Onmil all the tricky limnological etiquette questions you really want answered!!

At the 10th International Congress of Culture Collections (ICCC10) in Tsukuba Japan, 9-15th October 2004 a resolution was passed by the World Federation of Culture Collections to establish a network of Algal Culture Collections in the Asia-Pacific region.....Collections of freshwater algae and macroalgae are especially invited to reply as we at CSIRO Marine Research are probably unaware of your existence. Activities :

* Convene regular meetings of the members of the network.
* Conduct training courses/workshops to develop skills needed within algal culture collections and by other algal researchers.
* Facilitate national and regional research initiatives in Asia Oceania on:
  - biodiversity.
  - environmentally important algae including cyanobacteria, dinoflagellates, other harmful algal bloom species and threatened species.
  - economically important algae, e.g. Spirulina, aquaculture species.
* Establish links with other regional networks.

Member countries: Australia, China, Indonesia, Japan, Korea, Malaysia, Philippines, Thailand, Vietnam, New Zealand (awaiting clarification).

Ian Jameson

Dear Ian

I have been contacted by a collection of algal strains and species who would be delighted to be part of your network of Algal Culture Collections in the Asia-Pacific region (they insisted on the capitals, as they are always being overlooked, probably because they are microscopic). They apologise for not replying in person but, since they don't have any hands (or eyes or mouths, for that matter), they can't use the phone or computer. Perhaps they could be trained to use modern communications, as part of the training courses or workshops?

They were quite distressed at the thought that you may not be aware of their existence but, you see, no-one ever asked them before! They've been going along happily for years, dividing and multiplying (or is that multiplying and dividing?) with a bit of light and a fair amount of nutrients, not realising that there was a whole world of cultures out there! They are looking forward enormously to getting

together with other cultures at the regular meetings - they might even be able to hybridise!

They are a little concerned at some being labelled environmentally or economically important - species-ism is so last century. They prefer to think of themselves as cultured.

They are working on how to get to meetings, courses and workshops. Failing modern transport (although some breakaway groups are always trying to get into aircraft and ship water supplies), they decided to multiply (or is that divide?) their way there. Although starting slowly (they have only got about 100 mm from their starting point so far), due to their geometric rate of growth they are accelerating rapidly. Expect to be hit by an algal front travelling at near the speed of sound in a few months.

Yours sincerely

Onmil

P.S. New Zealand is almost perfectly clear. I know, I've been there!

P.P.S. Want to know just how the algae communicated with me?.....

Are you sure?...

Really truly?.....

Why, the same way we do, through patterns in the media!

Ask Onmil
All the tricky limnological etiquette questions you really want answered.....

CENTRE FOR RIVERINE LANDSCAPES, GRIFFITH UNIVERSITY, BRISBANE

The genetics crew, **James Fawcett**, **Joel Huey** and **Kate Masci** recently spent a couple of weeks sampling the Georgina and Diamantina Rivers in Western Queensland. Fish and invertebrate samples were collected for two PhD and one Honours project for subsequent genetic analysis. Target animals included fish bony bream, catfish, glass perch and rainbowfish and invertebrates: crayfish, prawns snails and mussels. Although sampling was intensive coupled with massive bouts of vomiting etc (no it was not the beer), some of the critters remained elusive. The trip was nonetheless successful, with the team recovering and the vehicle in good shape considering the 7000km covered.

The Dryland Refugia team (**Andrew Cook**, **Harry Balcombe** and willing helpers **Kate Smolders**, **Ryan Heise-Seabrook**, **James Fawcett**, **Steve Smith**, **Kate Masci**) have set up and completed a carp exclusion experiment on Binya waterhole in the Warrego catchment. The experiment was undertaken to help explain some of the differences noted in the primary productivity of waterholes in the Warrego compared to the Cooper catchment. It had been planned to run the experiment for at least 4 weeks and the set-up was delayed to ensure that there was NO chance of flooding of enclosures. Murphy's Law raised its ugly head and the team had to rush out to finish the experiment after two weeks with the water advancing. The experiment was saved and no carp escaped. This work completes all sampling components of the CRCFE Refugium Project.

Stuart Bunn, **Jane Hughes**, **Christy Fellows**, **Wade Hadwen** and **Time Page** are currently in New Orleons at the NABS conference. Looking forward to tales of their heroics.

Kate Smolders and **Andrew Cook** are sampling Echidna Ck (SE Qld) for the last time (measuring benthic metabolism) as part of the long-term rehabilitation project for this creek.

Stephen (Harry) Balcombe

INFORMATION FROM AND FOR MEMBERS

Call for papers

The Victorian Fisheries Research Advisory Body (VicFRAB) is seeking preliminary research proposal submissions for the 2006/07 round of funding from the fisheries Research and Development Corporation (FRDC).

Preference will be given to preliminary research proposals which are consistent with the following sub-programs of Victoria's Fisheries and Aquaculture Research and Development Strategy, 2005-2010:

* Sub-program 1A: Sustainability of Target Species
* Sub-program 1C: Sustainability of Fish Habitats and Ecosystem
* Sub-program 4D: Impacts of Human Modification
* Sub-program 6B: Market Development

These sub-programs encapsulate the priority research needs identified at the VicFRAB's 19 April 2005 R&D Workshop.

Consideration should also be given to the incorporation of the following sub-programs in submissions:

* Sub-program 7C: Leadership and Education
* Sub-program 8A: Coordination and Collaboration

To ensure that activities and results of FRDC projects are effectively communicated and contribute to the achievement of R&D outcomes, identification of extension work is a MUST.

The VicFRAB encourages applicants to forge partnerships with beneficiaries in order to develop the objectives and program of the proposed work and to agree on the practical outcomes. Organisations and individuals who wish to submit proposals should contact the VicFRAB's Secretary to obtain a preliminary application form and for information on the process and timelines adopted for the selection of proposals.

A copy of Victoria's Fisheries and Aquaculture Research and Development Strategy, 2005-2010 and the priority outcomes from the R&D Workshop are available online at
www.fcc.vic.gov.au <outbind://33-00000000B8BC91302D68A648A4ABB9FCC40461B0C48B4900/www.fcc.vic.gov.au>

Submissions are due to the VicFRAB by COB Tuesday 14 June 2005, preferably via email and addressed to the Secretary, Alison Cobbledick (council@fcc.vic.gov.au).

CALL FOR PAPERS - "Water: Resources & Discourses"

You've heard about it all your life: "six glasses a day," "essential to life," "60% of your body;" "the next oil," "don't drink the...," "like a fish out of.," "a wall of." Water is one of the most common compounds on our blue planet; we can't live in it yet we can't live without it. It's a prerequisite for life and a leading cause of death. Recent events overwhelm human capacities for management and understanding: the tsunami that killed a quarter million people and poisoned the survivors' fresh water supplies is being followed by drought; a seven-year drought that nearly emptied two of the largest man-made reservoirs in the world is being washed out by record rains; the Arctic is melting while an Antarctic ice sheet the size of Delaware heads to sea; rovers continue to find definitive evidence of vast extraterrestrial oceans. On the arts and culture front, water continues to be, as it has been for millennia, one of the most prevalent, resilient, and dynamic topics and symbols. If one's identity, like Keats', is writ on water, what is the potential (or possibility) of writing on water? It seems as good a time as any to find out.

Reconstruction: Studies in Contemporary Culture <http://www.reconstruction.ws> is calling for papers for a special issue on the resources and discourses of water. The editors will be particularly interested in: interdisciplinary studies, especially works that combine physical science with social and/or conceptual analysis; multi-media projects; hybrid formulations of creative/theoretical/scholarly writing; and essays that strike a middle ground between academic, private, and public sectors.

Abstracts (500 words) due by July 1, 2005 to: Justin M. Scott Coe <jscottcoe@earthlink.net> and W. Scott Howard <showard@du.edu>. Completed papers (5,000-10,000 words) due by December 1, 2005; publication expected, August, 2006.

Media wants environment and medical R&D info

A survey of journalists across Australia shows that when it comes to R&D they are particularly interested environmental and medical R&D information. The survey was sent to about 1200 media outlets across Australia with 114 journalists responding to the web survey, most of them being science journalists (91 or almost 80%).

A list of 32 R&D topics was provided on the web survey for journalists to choose from, and the top 12 topics chosen (in order) were:

*Water Use (65%)
*Native Flora & Fauna (56%)
*Medical treatments (55%)
*Social Issues (54%)
*River Health (54%)
*Global warming/climate change (53%)
*Disease threats (52%)
*Genetic engineering (52%)
*Waste Management (51%)
*Biotechnology (50%)
*Agricultural production (50%)
*Salinity (50%)

A number of journalists selected "other topics" such as astronomy, food technology and palaeontology, which were missing from the original list, according to Jenni Metcalfe from Econnect Communication who conducted the survey.

"It was interesting to see the number of science journalists who responded to the survey compared to general or other journalists," Ms Metcalfe said. "This seems to indicate that other journalists are just not interested in science topics, which is a cause for concern."

An initial Expert Guide of Cooperative Research Centre (CRC) researchers covers all of the topics listed above plus many others. This guide is available as hard copy or in an electronic version and includes the six CRC sectors: Environment, Medical, Manufacturing, Agriculture, IT and Communications, and Mining and Energy.

Most of the journalists surveyed (97) said they were interested to receive such an expert contact list and most wanted to receive this as an email attachment (40%) or through web access (31%). Twenty-six percent still like to receive such lists as hard copy and 17% wanted to receive them as part of an email message.

Most of the journalists (81%) indicated they contacted scientists consistently or sometimes and most (90%) said they would access an Internet site to get science stories, if it were available. When asked how they got their information or ideas for science stories, journalists said they were most likely to get this from:

*Media releases (86%)
*Internet (76%)
*Personal contacts (72%)
*From talking to experts (70%)
*From other media outlets (57%)

For a copy of the CRC Expert Guide and for further information contact: Jenni Metcalfe; Phone 0408 551 866; jenni@econnect.com.au

FASTS

FEDERATION OF AUSTRALIAN SCIENTIFIC AND TECHNOLOGICAL SOCIETIES

Science and Technology for the Social, Environmental and Economic Benefit of Australia

THE 2005/6 BUDGET AT A GLANCE.

As expected there was nothing new in the budget for science, technology and R&D. There were no changes to the commitments that were made last year in Backing Australia's Ability. ARC funding increases to $556.4m in line with BAA 1 commitments. CSIRO quantum as per triennial funding agreement at $593.9m. ANSTO received $138.05m including additional injection of $20.4m for the OPAL reactor.

The Government increased the efficiency dividend for all Departments and agencies (including CSIRO, ARC, NHMRC) to 1.25% (up 0.25%). This will mean an additional shortfall in real terms of $400,000pa for 07/08 and 08/09 for CSIRO and $341,000 over four years for the ARC.

The main environment measure was the additional $2b for water (which was announced last year). There were a number of minor measures of interest to various FASTS members; most of which were announced in the Federal Election campaign. These include:

Commonwealth Environment Research Facilities - $100.0 million over five years (including $25.3 million in 2009-10) for the Commonwealth Environment Research Facilities programme. Of this funding $40.0 million will be provided for a Marine and Tropical Sciences Research Facility to support research relating to Australia's Great Barrier Reef, tropical rainforests and coasts. The remaining $60.0 million will fund additional environmental research and be allocated nationally on a competitive tender basis in rounds commencing in July 2006 and July 2008.

The funding for the Marine and Tropical Sciences Research facility is the political fix for the failure of the reef and rainforest CRCs in the round last year. There is an allocation of $4.8m in 2005/6 which I assume covers the Commonwealth quantum for the two CRCs for the transition into the main funding in 2006/7.

Commonwealth radioactive waste management facility - $13.0 million over the next

three years to progress management of radioactive waste generated by Commonwealth agencies.

Cancer Research - Additional 17.4m over 4 years for Cancer research

Implementation of Higher Education Reforms - an additional $9.2 million over four years for DEST to implement the Higher Education Reform Package, Our Universities ‹ Backing Australia's Future, announced in the 2003-04 Budget.

James Cook University - Additional Veterinary Science and Tropical Agriculture Places, $14.0 million over four years to meet the costs of an additional 50 undergraduate veterinary science and 50 undergraduate tropical agriculture places at James Cook University each year.

James Cook University - additional medical places at James Cook University, $1.1 million over five years (including $0.2 million in 2004-05) for an additional 12 places for students to study Medicine at James Cook University. (The cost of Senator Len Harris's support of the legislation).

ANU - additional funding for the IAS - $16.5 million over three years (including $2.7 million in 2004-05), to address the anomaly for student places at the Institute of Advanced Studies.

University of Western Sydney - infrastructure projects, $25.0 million over three years to the University of Western Sydney for a range of infrastructure projects. A political fix for the reform package.

Australia-Antartica Airlink - $46.3 million from 2005-06 (including $7.0 million capital funding) to establish an intercontinental airlink between Australia and Antarctica. The airlink will improve access to Australia's Antarctic research stations.

Field Meteorological Offices – replacement, $19.8 million over six years (including $5.8 million in 2009-10 and $4.4 million in 2010-11), and funding of $1.3 million per annum from 2011-12, to replace twelve of the Bureau of Meteorology's oldest field meteorological offices around Australia. Field offices will be replaced at Sydney Airport in New South Wales, Willis Island, Longreach and Charleville in Queensland, Ceduna in South Australia, and in Esperance, Albany, Geraldton, Carnarvon, Port Hedland, Broome and Halls Creek in Western Australia. This measure includes capital funding of $14.4 million (including $4.6 million in 2009-10 and $3.0 million in 2010-11).

Green Stamp Programme - $0.9 million over three years to fund a national Green Stamp Programme to encourage recycling in the automotive retail industry.

Regional marine planning - extension, $9.4 million in 2005-06 to progress the development of regional marine plans for northern, north-western and south-western Australia, and to implement the south east regional marine plan.

Water Efficiency Labelling and Standards Scheme- The Government will provide $4.6 million over five years (including $1.0 million in 2009-10) to administer the mandatory national Water Efficiency Labelling and Standards Scheme. Of this funding $1.0 million over three years is already included in the forward estimates.

Alarming Trend In R&D Investment Must Be Reversed

Analysis of the budget shows Commonwealth investment in R&D will drop to below 0.6% of GDP in 2005/6 – the lowest level in two decades.

The President of FASTS, Professor Snow Barlow said Australia cannot expect to maintain strong economic growth while national investment in science and R&D continues to decline as a percentage of GDP.

"Despite the modest increases in R&D in Backing Australia's Ability, Commonwealth investment in R&D is projected to fall to 0.597% of GDP in 2005/06 – down from 0.66% in 2003-04 and 0.62% in 2004/5."

"Investment in R&D as a % of GDP is an important indicator of future economic growth. It tells us a lot about how much of today's economic activity we are prepared to invest for our future and our children's future".

"It would be very courageous to assert there is no correlation between investment in R&D and long term productivity and economic growth".

"The ageing population and future climate change are two very good reasons to ramp up our investment in science and innovation".

"Where is economic growth going to come from apart from increased productivity grounded in new knowledge and R&D?"

"Governments cannot simply rely on consumer spending and strong commodity prices to continue to prop up record GDP growth".

"Reversing this decline in R&Ds share of national economic activity must be a top

priority for the next budget.

"Failure to address this urgent issue will threaten our future prosperity and result in Australia going backwards in a highly competitive global knowledge economy", concluded Professor Barlow.

The Queensland Govt has announced its follow up to 'Smart State'
The new strategy paper – Smart Queensland – commits to at least $473m in new funding over the next four years. $350.843 million in recurrent spending and $121.699 million in capital.

According to the media release the key elements are:
- Three new innovation funds, totalling $200 million, and an extra $20 million for the Smart State Research Facilities Fund.
- An education package backed by $127 million, including $56 million to convert all 1300 state schools into Smart Classrooms and $46 million for two new high school academies of excellence.
- The Golden Casket Medical Research Foundation, based on interest earned on more than $23 million in unclaimed first division lotto prize money.
- An extra $51.5 million in new funding for water initiatives.
- $1 million for biotechnology research to control cane toads.
- $2.4 million for the Queensland-based International Water Centre.
- $20 million to boost mining exploration (with potential returns of $3 billion for the mining industry).
- $7.3 million for an ethanol plan that includes helping service stations make E10 available.
- $4 million for the aquaculture industry.
- $7 million towards a facility that will enable biotechs to do more development of potentially life-saving drugs in Queensland.
- $1.4 million for Australia's first biotech "pipeline".
- $1.5 million for the horticulture industry to target new Asian export markets.

The quantum for Smart Queensland does not include two major proposals: Boggo Road ecosciences precinct and a health and food sciences precinct at Coopers Plains. Copies of the strategy are available at www.smartstate.qld.gov.au

Chief Scientist
As you may have already heard, Minister Nelson has announced that Robin Batterham would not be seeking a third term as Chief Scientist and will finish in that role on 31 May 2005 (the Minister's statement is appended below).

Robin has been a vigorous advocate for R&D in his two terms and has had a highly influential formative role in the Government's policy approach to science and R&D in

Backing Australia's Ability I and II. I am sure every one wishes him well with his role in Rio Tinto and looks forward to the announcement of the new Chief Scientist.

FASTS has a strong view on the role and the need for a full time Chief Scientist (refer, for instance, our submission on the Chief Scientist for the Senate inquiry last year which is in the media release archive of news-reports on the FASTS website) and hope that the CS will have a strong appreciation of the diversity of science and R&D outcomes, impacts and pathways to successful economic, environmental and social utilisation of R&D.

Minister's Statement:
"It is with regret that I announce that Australia's Chief Scientist Dr Robin Batterham has advised me of his intention not to seek reappointment for a third term.

After two full terms as Australia's Senior Science Adviser, Dr Batterham has decided to accept a full time position with Rio Tinto, with whom he is currently engaged on a part time basis.

During Dr Batterham's tenure, he was instrumental in encouraging investments in science and raising science awareness among the broader community.

Dr Batterham worked with the Australian Government to transform science and innovation investment, particularly through the Backing Australia's Ability package which will result in $8.3 billion in funding over the period 2001-2011.

His commitment to advising ministerial colleagues in other portfolio areas has also been of great value, as has his interaction with State governments.

Dr Batterham has served with great enthusiasm and commitment as Executive Officer of the Prime Minister's Science, Engineering and Innovation Council, the Australian Research Council, the Cooperative Research Centres Committee, the Prime Minister's Prize for Science Committee and the Coordination Committee on Science and Technology.

On behalf of the Australian Government, I wish Dr Batterham all the best for his future work. The Australian science community has been greatly enriched by his contribution to it.
I have invited Dr Batterham to participate in the process to recommend to the Prime Minister a new Chief Scientist. I look forward to making an announcement on that appointment in the near future."

REVIEWS

Freshwater Invertebrates of the Malaysian Region (editors: Catherine M. Yule and Yong Hoi Sen); published 2004 by Academy of Sciences Malaysia (Akademi Sains Malaysia) and Monash University. pp 868, US$60 plus postage. ISBN 983-41936-0-2

[The book can be obtained from: The Manager, Aura Productions Sdn. Bhd., Lot 10, Jln SS 13/3F, Kawasan Perindustrian Subang Jaya, 47500 Subang Jaya, Selangor, Malaysia. Fax: +603 5637 1652. Email: aurapro@tm.net.my]

This detailed account of the taxonomy of the freshwater invertebrate fauna of the Malaysian region has 80 contributing authors who have written 68 chapters on 66 groups of organisms ranging from Protozoa to Crustacea and freshwater Insects. It is essentially an identification guide to a diverse tropical fauna. Two introductory chapters deal with the nature of freshwater environments in Malaysia: the first describes the lakes and swamps, paddy fields, peat swamps, rivers and streams and subterranean waters that constitute the bulk of the freshwater habitat; the second the phytotelmata or the small water bodies held by living or dead terrestrial plants, which are so common in the humid tropics. The following chapter provides a key to the freshwater phyla and to some of the classes or orders of the larger taxa. The remaining 65 chapters deal with individual groups of organisms and form the bulk of the book.

Freeliving Protozoa have often been dealt with by textbooks on freshwater invertebrates. In this case the emphasis is on the parasitic protozoa (although mention is made of freeliving forms), which cause significant health problems in tropical regions. A later chapter deals with the aquatic stages of parasitic Helminths, another group that causes misery in the tropics yet could be encountered by those sampling freshwater. These accounts are unusual in a treatment essentially for freshwater taxonomists and ecologists. However, both chapters make clear the intimate aquatic connection of these taxa.

What might be regarded as the conventional freshwater groups occupy the majority of chapters. Fifteen chapters deal with the 'lower invertebrates', nine with various groups of Crustacea (including chapters dealing with the diverse and ubiquitous freshwater crabs and prawns of the region), two with spiders and water mites and 37 with aquatic insects, including an introductory chapter with a key to the aquatic insect orders. Twenty six chapters cover various families of aquatic Diptera, the first of which provides a key to the larvae of these families. The large

amount of detail on the difficult to identify dipterans reflects perhaps the experience of the editors in this region of the world. I feel sure it will be welcomed by many readers.

As might be expected the individual accounts vary greatly in length but all provide information about the general biology and life cycles of the group in question, followed by an account of the regional taxa likely to be encountered. The final and greater part of most chapters is devoted to dichotomous keys that take readers to the family level in most cases and to the genus or species level for a number of groups. Included with the keys are detailed notes about the distribution of taxa and of course numerous line diagrams (and some photographs) illustrating whole animals or diagnostic features. By and large the figures have been well reproduced, although some seem to have lost detail possibly because they have been reduced too much. Illustrations are of course vital for the use of the keys and I feel those included serve this purpose well.

I am not going to attempt to give a detailed appraisal of each chapter. With a book of this size that is beyond the capacity of a single person. However, the main impression I have of the chapters (as a freshwater ecologist working in a museum who never ceases to be grateful to taxonomists and their collections) is that they are a mine of fascinating and detailed information with little or no wasted space, a tribute I think to the editors and authors. An index to taxa at the generic level and above provides a helpful shortcut for those wanting to get at details quickly. The various accounts should prove extremely useful to all students of freshwater habitats in the Malaysian region and provide an excellent introduction to the relevant literature. Indeed, I would say that anyone interested in freshwater invertebrates will derive much from this book, particularly those working in nearby tropical areas such as northern Australia. I fully agree with the editors that this book covers "uncharted territory" and I hope, with them, that this book will encourage others to fill the many "taxonomic gaps" it has identified.

I have only one small complaint. There is no map of the region covered - Malaysia, Singapore and parts of Indonesia and southern Thailand. Thus readers will need an atlas to locate some of the places mentioned. This is a pity as a suitable map could have been printed on the endpapers. At US$60 (plus postage: US$10-35 depending on country) I think the book is a bargain and one that all who work in freshwater will value.

Richard Marchant, March 2005

Wetlands identified as planet's most threatened ecosystem
A five year research effort by 1360 of the world's leading scientists gives compelling evidence of our dependence on healthy and diverse ecosystems for clean water, food, a stable climate and much more. The Millennium Ecosystem Assessment is the largest mobilisation ever to assess the current state of the world's ecosystems and the services they provide to support life on Earth.

Reports were launched in a number of locations around the world. Other reports, including those on wetlands (as defined by Ramsar), will appear separately over the next few months. See information at:
http://www.millenniumassessment.org/en/index.aspx

Prof Mark Burgman's new book **Risks and Decisions for Conservation and Environmental Management** is now available. See
http://www.cambridge.org/uk/catalogue/catalogue.asp?isbn=0521835348

CONFERENCE CAPERS

SCIENCE MEETS PARLIAMENT
Report to Australian Society of Limnology
Ayesha Burdett

The annual Science meets Parliament event (SmP) was recently held in Canberra. Over 200 interested scientists and technologists eagerly took the opportunity to meet with members and senators and learn more about the Parliamentary process.

SmP was conducted over two days. The first day was spent learning about the aims and objectives of SmP, the key issues to be discussed, and the etiquette of speaking with parliamentarians. The second day was spent in two short meetings with two other scientists and one parliamentarian, several interesting forums, a lot of impromptu conversation with scientists from different backgrounds, and a sighting of Princess Mary and Prince Frederik if you were lucky.

Early on, it was clear that the group was divided. One half of the scientists was characterised by those wanting to find out more about the parliamentary process and convey enthusiasm for science to the parliamentarians who don't often hear about the bare bones of science. The other half was characterised by those with a

list of agendas, and a suite of lobbying techniques that had been honed by years of looking for outcomes. I belonged to the first group, and looked upon this as an experience to gain knowledge about the policies influencing scientific research and to communicate with the parliamentarians some of the passion required to conduct scientific research.

I met two members of parliament on the second day, and they were quite different experiences. The first was Kay Hull, (Nationals) Member for Riverina, whom I met with a psychologist working on drug issues. We briefly discussed my research and went onto discussions about the National Water Initiative. This was not a particularly rewarding, as the discussion was driven by a need to find solutions, rather than an innate interest in science.

The second discussion was more satisfying. I met Harry Jenkins, the Second Deputy Speaker in the House of Representatives. I was joined by two scientists from CSIRO who worked on sustainable energy. Harry was receptive to our research discussions, and then the conversation moved onto more general discussion of science and his electorate. We three scientists felt satisfied that we had conveyed our enthusiasm for science to Mr Jenkins and that he enjoyed learning about our research.

SmP continues to be a success because it manages to capture a diversity of sciences from across a broad range of disciplines. While some meetings with parliamentarians are more successful than others, it is a great forum for discovering the way that science fits into the parliamentary process and for establishing an ongoing dialogue between science and policy. Thanks, ASL, for letting me see the inner workings of our Parliament!

Additions from Sabine:
Similar to Ayesha I found SMP a very worthwhile event to attend for learning about the political process in relation to science in Australia. I was also astounded by the lobbying techniques and abilities of scientists politically more astute than myself! And I was overwhelmed by the diversity of fields and range of expertise and experiences of the scientists that I met at this event. In many ways that was the most inspiring aspect of the event for me.

The information and training sessions for interacting with parliamentarians organised by FASTS on the first day were excellent - several experienced lobbyists and actual "real-life staffers" of parliamentarians gave us sage advice, the accuracy of which was born out in the meetings the following day. Alone these training sessions were worthwhile, even if not all scientists had as many meetings with parliamentarians as they may have liked to have.

I found it a fascinating event and would recommend it especially to early career ASL members, as it really opens the eyes to how things work at decision-making levels, how communication to non-scientist decision makers can be improved and how important the distinction between the different levels of government really is.

Additions from Andrew:
The National Water Initiative was high on the political agenda and although the three parliamentarians with whom I spoke were more concerned about the economic and social aspects of the NWI, it was possible to steer the conversation onto the role played by ASL members in providing the science needed to help assess and protect/enhance the 'health' of rivers and wetlands. All of the parliamentarians who I met were alert to water issues in their electorates and were keen to hear of relevant research. As with last year, the parliamentarians were charming, charismatic, and seemed genuinely interested in the activities of ASL members and the society's goals. For me, the highlight was the dinner where we had the chance to chat for a couple of hours with two parliamentarians about higher education, environmental issues, and the implications of the NWI. Like Ayesha and Sabine, I found the event enjoyable (despite having to elevate my sartorial standards) and my 'take-home message' was the need to continue ensuring that parliamentarians recognize and support the value of well-planned and fully-funded pure and applied science in limnology, particularly the benefits of longer-term, interdisciplinary projects at catchment scales.

ASL Post-congress tour to the Coorong and Kangaroo Island
By Jackie Griggs
jacqueline.griggs@sawater.com.au

Virtually immediately after the 2005 ASL Congress in Adelaide concluded, this post-congress tour commenced, 14 people jumped into a mini-bus (loaded with complimentary bottles of wine for each tour guest, courtesy of the South Australian Tourism Commission's "Linger Longer" campaign via Peter Gell's fortuitous conversation) and headed off to Goolwa, with Kerry Mueller at the wheel to guide us. We made our way to Hindmarsh Island where we boarded the Spirit of the Coorong with a board member and local irrigator and staff from the River Murray Catchment Water Management Board (RMCWMB) and Local Action Plan group, and commenced our tour of the Coorong. We chugged along eating nibbles and drinks put on by the RMCWMB and made a beach landing near the mouth of the Mighty Murray River. A stroll along the beach led us to the mouth, where we looked at dredging operations on the other side of the channel and dipped our toes in the water, meanwhile picking the brains of the locals about the management of this end

of the Murray. We then travelled further east up the Coorong where we again made landfall and walked through the dune vegetation to the seaward side of the Young Husband Peninsula. We heard about the cockle industry, and how the growth rates of the cockles is dependent on the nutrients and algae discharged from the mouth of the Murray, and had a taste of fresh cockles, straight off the beach. We returned to the Coorong and travelled past thousands of migratory birds wading about in the shallows, a bird watchers paradise. Back to Goolwa where we had dinner with Kerri then bade her farewell, and spent the night in some cabins at the caravan park.

Early the next morning we all got up and met in one room for breakfast, then packed our bags, piled into the mini-bus and headed off to Cape Jervis (via the scenic route!) to catch the first ferry of the morning to Kangaroo Island. Waiting on the other side was Tom Nelson, Project Officer for the Kangaroo Island Natural Resources Board and tour guide for the next few days. Our first stop was at Pennington Bay, where, from the cliffs, we saw a pod of dolphins in the translucent green waters herding a shoal of fish – the first of many wonders Tom had to show us. A quick stop at Kingscote to drop off our gear and pick up lunch, then it was off to Flinders Chase National Park. We were Tom's "honoured guests" in the park, and were taken to Rocky River – a near pristine river in an intact catchment, that is used as one of the South Australian MRHI reference sites. Tom took us on a fantastic walk along to the mouth of Rocky River, we discovered a large lizard shedding its skin, bat caves and a rather distressed *Cherax destructor* at the mouth of the river on its way to being washed out to sea. A few hardy soles braved a swim in the Southern Ocean, while the rest of us were content to wade about in the tannin stained river, which looked quite amazing where it mixed with the sea. Our next stop was Admiral's Arch, where we saw Cape due Couedic and engaged in some marine biology – a New Zealand Fur seal colony to be precise, full of male fur seals defending their territory and waiting for the "ladies" to arrive. The antics were interesting but the smell left a bit to be desired. We also sussed out Remarkable Rocks, weirdly shaped granite rocks on a granite dome – no "gnamma rock pools" of Ian Bayley fame but plenty of evidence of the erosive actions of rain and wind. That night Tom took us to his favourite Pizza restaurant in Kingscote where we had some superb gourmet pizzas washed down with a few glasses of vino.

Sunday dawned bright and sunny, another glorious day on the Island. After a leisurely breakfast we headed off to see some salt lakes near Kingscote. The first was a primary salinised lagoon aptly named "White Lagoon" and was where the early settlers harvested their salt – here's a picture of Tom in his trusty waders explaining the wonders of the salt lagoon to the group.

<insert picture or if no room, remove/change end of above sentence>

A vigorous discussion ensued between our West Australians salt lake experts as to how much surrounding land use, and increased isolation of the lagoon from the sea due to installation of the nearby road may have increased the salinity of the lagoon. We then went and had a look at a secondarily salinised lagoon, which was almost but not quite dried up – there was much excitement when we found a concentrated soup of micro-crustaceans left in a large puddle in the middle, with some barely able to tear themselves away – lucky we didn't have microscopes with us or your's truly would have spent all day there. A quick stop at Emu Bay to clean off the mud, then it was off to Birchmore Lagoon where we were shown the effects of land clearance on the fringing vegetation – much had died through waterlogging. Postcard perfect Vivonne Bay at the mouth of the Harriet River was our lunch stop, where some of us also had a swim, oops, that is some of us engaged in more "marine biological pursuits" for a while. After lunch we travelled up the Harriet River to a Marron Farm. Marron (*Cherax tenuimanus*) were introduced into the creeks and rivers of Kangaroo Island from Western Australia just over 20 years ago and have spread far and wide, and are caught and sold by local farmers with creeks & rivers in their properties as a income supplement to sheep and cereal production. However the Marron Farm we visited was a state of the art aquaculture venture, with all ponds netted off to prevent the marron from going walkabout – and the birds from getting in. They are able to stay alive at low temperatures for 12-14 days, which makes them a perfect live export, they are airfreighted primarily to the Sydney Markets, where they are in hot demand. The farm had a sophisticated water reticulation set-up for purging the Marron and vineyards and its own wine label as well – we were all able to taste some of the latest vintage, and some of us went home with bottles of wine, and a few Marron tucked away in an eski or two. From there we headed back to Pennington Bay via Kingscote to retrieve our gear, then bade farewell to a few early departures who had to spend the next 10 hours driving to NSW, while the rest of us went for a walk on the beach. Finally it was time to head back to Penneshaw where we explored the local shops before boarding the ferry and farewelling Tom Nelson. We landed at Cape Jervis where we passed the Starfish Hill wind farm – the first to be built in SA, and headed back to Adelaide for a well earned rest after a jam packed weekend.

Thanks go to the Kerry Mueller and the River Murray Catchment Water Management Board for providing sponsorship for the trip and guiding the Coorong element, and to the Kangaroo Island Natural Resources Board and Tom Nelson for his time, mates rates for ferry fares and park entry, and excellent selection of Kangaroo Island highlights. Thanks also to Annabel Morris for last minute essential logistic support. This all made the trip not only affordable for all who participated, but also gave us a real appreciation of the limnological issues of The Coorong and Kangaroo Island.

FORTHCOMING CONFERENCES/WORKSHOPS

Tassie conference information and registration details will be posted on the website in early July, and in the following newsletter. Unfortunately everyone's beavering away and not quite ready to get it all into this newsletter - Danielle Warfe (on behalf of Tas organising bods).

The 2005 Catchment Modelling School
BRISBANE 30 JUNE - 8 JULY SYDNEY 14 - 22 JULY
The School offers a range of over 30 hands-on modelling software workshops delivered by some of Australia's best catchment modellers.
Register at www.toolkit.net.au/school

Advanced Training Workshop on Southeast Asia Regional Carbon and Water Issues Chung-Li and Kaohsiung, Taiwan November 15-28, 2005
As Part of Capacity Building Program for Southeast Asian Regional Committee for START (SARCS).

The workshop is open for senior technicians and junior faculty from SARCS member countries. In general, two to three participants will be chosen from each SARCS member country based on their past academic experience and background. We will provide air travel expense and accommodation for workshop participants. English will be used as the official workshop language and a Ph.D. degree in related field is preferred, but not required. Interested persons should send in their resume, including academic background, research interest and recent publications to SARCS Secretariat by July 15, 2005. Final decision for workshop acceptance will be sent to all applicants by August 20, 2005.

Application letter and curriculum vitae should be sent to SARCS Secretariat. The contact information is as followed:

Ms. Olga Huang
SARCS Secretariat
National Central University
320 Chung-Li, Taiwan
Tel.: 886-3-426-2726
Fax: 886-3-426-2640
E-mail: sarcs@sarcs.org.tw

For further inquiry, please contact SARCS Secretariat or one of the chief organizers, Prof. Chen-Tung Arthur Chen at ctchen@mail.nsysu.edu.tw.

New Zealand Hydrology Conference, 28th Nov - 2nd Dec 2005, Auckland.
Trevor Pillar draws your attention to the above Conference to be convened jointly by the International Assoc of Hydrogeologists and the NZ Hydrological Society. Details about the Conference are at the website :
http://www.iah.asn.au/pdfs/NZHS-IAH%20Circular1.pdf

Australian Entomological Society's 36th AGM and Scientific Conference
You are invited to attend the Australian Entomological Society's 36th AGM and Scientific Conference/7th Invertebrate Biodiversity and Conservation Conference /Australian Systematics Society in Canberra, Australia, 4 - 9 December 2005.

Included in the scientific program to the conference is a symposium on managing water and waste water with invertebrates. If you would like to present a paper, abstracts are due by 30 August 2005. For more details, go to http://www.invertebrates2005.com/abstract.htm

Richard Sharp
richard.sharp@maunsell.com
T +61 2 6122 2030

Hydrological Sciences for Managing Water Resources in the Asian Developing World
Time: June 8-10, 2006 *Venue: Baiyun Hotel, Guangzhou, China*
Language: English Conference Website *http://cwre.zsu.edu.cn/mwra*
This international conference aims to offer a multi-disciplinary platform for water experts and professionals, within and outside of the region, to exchange their views and research findings on a wide range of water problems in Asia. It will be an excellent opportunity for hydrologists from developed and developing countries around the globe to meet and jointly search for more effective and science-based solutions for water management in Asian countries.

Hot onto the press!
We are pleased to advise you that ON-LINE REGISTRATION and ABSTRACT SUBMISSION for the combined **Australian Entomological Society's 36th AGM and Scientific Conference, 7th Invertebrate Biodiversity and Conservation Conference,** and **Australian Systematic Biologists Conference** is now available on http://www.invertebrates2005.com/ .

ASL VOLUNTEERS

The following members have volunteered to speak as experts on behalf of the ASL. If you wish to be included on the list or amend your contact details, please contact:
Dr Richard Marchant (ASL Secretary)
Email: rmarch@museum.vic.gov.au

Prof Angela Arthington:
in stream flows, ecology of exotic fishes, conservation of rare fishes.
Centre for Riverine Landscapes, Griffith University, Natham Qld. 4111.
Phone (07) 3875 7403, Fax (07) 3875 7615, email:
a.arthington@mailbox.gu.edu.au

A/Prof Paul Boon:
bacteriological issues, wetlands. Environmental Management, Victoria University of Tech., PO Box 14428 MMC, Vic. 3000.
Phone (03) 9365 2214, Fax (03) 9365 2465, email: paul.boon@vu.edu.au

Dr Andrew Boulton:
intermittent streams, hyporheic zones, Flinders Ranges.
Department of Ecosystem Management, University of New England, Armidale, NSW 2351.
Phone (02) 6773 3760, Fax (02) 6773 2769, email: aboulton@metz.une.edu.au

Dr Margaret Brock:
temporary wetlands, aquatic plants.
Centre for Natural Resources, DIPNR, PO Box U245, UNE, Armidale, NSW 2351.
Phone (02) 6773 5268, Fax (02) 6773 5288, email:
Margaret.Brock@dipnr.nsw.gov.au

Prof. Stuart Bunn:
stream ecology, ecology of riparian zones, biomonitoring.
Centre for Riverine Landscapes, Griffith University, Nathan, Qld. 4111.
Phone (07) 3875 7407, Fax (07) 3875 7615, email: S.Bunn@mailbox.gu.edu.au

A/Prof. Jenny Davis:
wetland and stream ecology, ecology of central Australian waterbodies.
School of Environmental Sciences, Murdoch University, Murdoch, WA 6150.
Phone (08) 9360 2939, Fax (08) 9310 4997, email: davis@essun1.murdoch.edu.au

Prof. Patrick De Deckker:
salt lakes: biology, chemistry and history, palaeolimnology towards understanding past environmental change.
Department of Earth & Marine Sciences, The Australian National University, Canberra, ACT 0200.
Phone (02) 6125 2070, Fax (02) 6125 5544,
email: patrick.dedeckeer@anu.edu.au

Dr Michael Douglas:
tropical freshwater ecology, intermittent streams, tropical floodplains.
School of Biological and Environmental Sciences, Northern Territory University, Darwin, NT 0909.
Phone (08) 8946 7261, Fax (08) 8946 6847, email: michael.douglas@ntu.edu.au

Mr Stefan Eberhard:
groundwater dependent ecosystems (subterranean fauna), caves and karst.
c/o CaveWorks, PO Witchcliffe WA 6286. Phone: (08) 9757 411, Fax: (08) 9757 7421, email: stefaneberhard@margaretriver.com

Dr Tim Entwisle:
taxonomy and ecology of freshwater macroalgae.
Director Plant Sciences, Royal Botanic Gardens Sydney, Mrs Macquaries Road, Sydney NSW 2000. Phone (02) 9231 8113, Fax (02) 9251 4403,
email: tim.entwisle@rbgsyd.nsw.gov.au

Dr Max Finlayson:
wetlands, Ramsar convention.
Supervising Scientist Group, ERISS, Locked Bag 2, Jabiru, NT 0886.
Phone (08) 8979 9756, Fax (08) 8979 2449, email: maxf@eriss.erin.gov.au

Dr Mike Grace:
nutrient cycling and biogeochemical processes.
CRC for Freshwater Ecology/Water Studies Centre, Chemistry Department, PO Box 18, Monash University, Clayton Vic. 3800.
Phone (03) 9905 4078, Fax (03) 9905 4196, email:
Michael.R.Grace@sci.monash.edu.au

Dr Tom Grant:
platypus biology.
Biological Science, University of NSW, PO Box 502, Cronulla NSW 2230.
Phone (02) 9527 2862, Fax (02) 9527 2862, email: t.grant@unsw.edu.au

A/Prof Margaret Greenway:
Constructed wetlands, Melaleuca wetlands, biogeochemical processes.
School of Environmental Engineering, Faculty of Environmental Engineering, Griffith University Nathan Qld 4111. Phone (07) 3875 7486, Fax (07) 3875 7404, email: m.greenway@mailbox.gu.edu.au

Dr Mark Harvey:
watermites.
Department of Terrestrial Invertebrates, Western Australian Museum, Francis Street, Perth WA 6000. Phone (08) 9427 2737, Fax (08) 9427 2882, email: mark.harvey@museum.wa.gov.au

Mr Kent Hortle:
impact of mining, impact of development in SE Asia and PNG on rivers.
EMA Pty Ltd, 11 Gallus Close, Vermont Vic. 3133.
Phone and Fax: (03) 9873 5887, email: kent_hortle@bigpond.com

A/Prof Pierre Horwitz:
conservation of freshwater invertebrates.
Centre for Ecosystem Management, Edith Cowan University, Joondalup Drive, Joondalup WA 6027. Phone (08) 9400 5558, Fax (08) 9400 5070, email: p.horwitz@cowan.edu.au

Prof. Gary Jones:
cyanobacterial blooms.
CRC for Freshwater Ecology, Building 15, University of Canberra ACT 2601.
Phone (02) 6201 5168, Fax (02) 6201 5038 email: gjones@canberra.edu.au

Prof. P. Sam Lake:
stream ecology, conservation of freshwater biota.
Department of Biological Sciences, PO Box 18, Monash University, Clayton Vic. 3800. Phone (03) 9905 5653, Fax (03) 9905 5613, email: sam.lake@sci.monash.edu.au

Dr Vladmir Matveev:
plankton food webs, biomanipulation.
CSIRO Land and Water, 80 Meiers Road, Indooroopilly Qld 4068.
Phone (07) 3214 2755, Fax (07) 3214 2881, email: Vladimir.Matveev@.csiro.au

Dr Kerri Muller:
constructed wetlands, wetlands of the Lower Murray.
River Murray Catchment Water Management Board, 1 Colman Terrace, Strathalbyn SA 5255.
Phone (08) 8536 8125, Fax (08) 8536 8126, email: kerri_muller@triplei.net.au

Dr Richard Pearson:
tropical freshwater ecology.
School of Tropical Biology, James Cook University, Townsville Qld. 4811.
Phone (07) 4781 5466, Fax: (07) 4781 5511, email: richard.pearson@jcu.edu.au

Dr Peter Pollard:
microbial ecology.
Centre for Riverine Landscapes, School of Environmental Engineering, Griffith University,
Nathan, Qld 4111
Phone (07) 3875 6597, Fax (07) 3875 7404, email: p.pollard@griffith.edu.au

Dr Winston Ponder:
taxonomy, biogeography and biology of freshwater mollusca.
Invertebrate Zoology, Australian Museum, 6 College Street, Sydney NSW 2010.
Phone (02) 9320 6120, Fax (02) 9320 6050, email: winstonp@amsg.austmus.gov.au

Dr Melody Serena:
platypus ecology and conservation.
Australian Platypus Conservancy, PO Box 84, Whittlesea Vic. 3757.
Phone (03) 9716 1626, Fax (03) 9716 1664, email: platypus@vicnet.net.au

Dr Russ Shiel:
planktonic and littoral microfauna, billabong ecology.
Visiting Research Fellow, School of Earth and Environmental Sciences,
University of Adelaide
SA 5005.
Phone (08) 8303 5294, Fax (08) 8303 6222, email: russell.shiel@adelaide.edu.au

Dr Brian Timms:
lake geomorphology, coastal dune lakes, arid zone wetlands.
Department of Environmental and Life Sciences, University of Newcastle,
Callaghan NSW 2308. Phone (02) 4921 5080, Fax (02) 4921 5877, email:
ggbvt@cc.newcastle.edu.au

Dr Lloyd Townley:
groundwater-surface water interaction.
Townley & Associates Pty Ltd, PO Box 425, Claremont WA 6910.
Phone (08) 9389 6377, Fax (08) 9389 6477, email: LTownley@Townley.com.au

Prof Keith F. Walker:
Murray-Darling Basin rivers.
School of Earth and Environmental Sciences, University of Adelaide, Adelaide
SA 5005. Phone (08) 8303 5595, Fax: (08) 8303 4364, email:
keith.walker@adelaide.edu.au

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Fill out the form below and send onto the Treasurer/Membership Officer (address below), or alternatively go to the ASL website (http://www.asl.org.au/asl_member.htm). Fill in the details on the form, including credit card details, and submit. ASL is not registered for GST, therefore ASL does not charge GST.

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If you are a member of the ASL and want to receive your newsletter electronically, then please fill in the form below. Members who do not want to receive an electronic version, and would rather still receive the paper version will continue to do so, but you are encouraged to also fill in and send the form below (we do not have plans to phase out the paper version completely).

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[1] Rich Text Format (.rtf) is a format that can be opened in any word processor, although slight variations in layout may occur in different programs.

[2] Portable Document Format (.pdf) is a format that looks and prints exactly as the publisher intended. It can be opened using Adobe Acrobat viewer which is free and can be downloaded from their website.

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Margaret Hart
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REGIONAL EXECUTIVE MEMBERS 2004-2005

NSW
Darren Ryder, Ecosystem Management, University of New England, Armidale NSW 2351
Phone (02) 6773 5226, Fax (02) 6773 2769, Email: dryder2@pobox.une.edu.au

QLD
Fiona McKenzie-Smith, Centre for Riverine Landscapes, Griffith University, Nathan QLD 4111
Phone (07) 3875 6703, Fax (07) 3875 7615, Email: F.McKenzie-Smith@griffith.edu.au

SA
Brenton Zampatti, SARDI Aquatic Sciences, PO Box 120, Henley Beach SA 5022
Phone (08) 8207 5491, Fax (08) 8207 5406 Email: zampatti.brenton@saugov.sa.gov.au

WA
Suzi Wild, Aquatic Ecosystems Research Grp, Murdoch University, South Street, Murdoch WA 6150
Phone (08) 9360 292408, Fax (08) 93104 99708, Email: swild@essun1.murdoch.edu.au

NT
Naomi Rea, School Australian Indigenous Knowledge Systems, Faculty of Law Business and Arts, Charles Darwin University NT 0909
Phone (08) 8946 6570, Fax (08) 8946 6345, Email: naomi.rea@cdu.edu.au

VIC
Barbara Downes, School of Anthropology, Geography and Environmental Studies, The University of Melbourne, Parkville VIC 3010
Phone (03) 8344 6781, Fax (03) 8344 4972, Email: barbarad@unimelb.edu.au

TAS
Danielle Warfe, Depart of Primary Industries, Water and Environment, PO Box 44, Hobart TAS 7001
Phone (03) 6233 3128, Fax (03) 6233 6881, Email: Danielle.Warfe@dpiwe.tas.gov.au

ACT
Frederick Bouckaert, Murray Darling Basin Commission, GPO Box 409, Canberra ACT 2601
Phone (02) 6279 0184, Fax: (02) 6248 8053, Email: Frederick.Bouckaert@mdbc.gov.au

STUDENT REPRESENTATIVE
Angus MacGregor, PhD Research Scholar, Freshwater Ecological Consultant (Diatoms), Geographical and Environmental Studies, University of Adelaide, Adelaide SA 5005
Phone (08) 8303 3259, Fax: (08) 8303 3772, Email: angus.macgregor@adelaide.edu.au

WEBMASTER
Heather Shearer, Land Resource Officer (Planning and Environment), Department of Natural Resources and Mines, 52-64 Currie Street, Nambour QLD 4560
Phone (07) 5451 2254, Email: Heather.Shearer@nrm.qld.gov.au

MEDIA LIAISON
Tim Doeg, 77 Union Street, Northcote VIC 3070
Phone (03) 9481 8130, Fax (03) 9481 8130, Email: crowdoeg@optusnet.com.au

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